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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,007	09/09/2003	Michal Hlavac	INGEENI-3	3503
Pandiscio & Pandiscio, P.C. 470 Totten Pond Road Waltham, MA 02451-1914				
EXAMINER				
RADA, ALEX P				
ART UNIT		PAPER NUMBER		
3714				
MAIL DATE		DELIVERY MODE		
03/12/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/659,007

Applicant(s)

HLAVAC ET AL.

Examiner

ALEX P. RADA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date 7/7/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

In response to the amendment filed 18 July 2008 wherein applicant amends claim 1, cancels claims 2-3 and claims 1 and 4-8 are pending in this application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not disclose the limitation of, “commands from the user capable of dynamically adding new sets of nodes, whereby the virtual character is capable of learning a new skill which extends beyond a pre-existing set of nodes.” The examiner request applicant to point out in the disclosure as originally filed the claimed limitation.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

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skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rapoza et al. (US 6,561,811) in view of Black (US 6,269,351).

Regarding claim 1, Rapoza discloses a method of providing a virtual world comprising a virtual environment (col. 7, lines 51-53), a plurality of virtual elements within the virtual environment, each of the virtual elements being able of interacting with other virtual elements in the virtual environment, as well as with the user (col. 8, lines 47-53; col. 12, line 64 – col. 13, line 10); wherein at least one of the virtual elements is a virtual character (col. 8, lines 51-53), the character having a behavior state (i.e., CHA, CON), an emotion state (i.e., CONF), and a learning state (i.e., INT) (col. 17, lines 39-48, lines 62+), and the learning state is capable of changing in response to (i) interaction with other virtual elements within the virtual environment (col. 7, lines 54-57; col. 8, lines 21-46; and col. 12, lines 10-25), and/or (ii) commands from the user controls, whereby the virtual character is capable of learning a new skill; and teaching the individual a desired skill by inducing the individual to actively teach the desired skill to a virtual character within the virtual environment by providing a virtual character with the instructions needed to learn the desired skill, wherein the teaching of the individual is carried out by: (i) prompting the individual to provide a virtual character with the instructions necessary to explicitly teach the desired skill to the virtual character within the virtual environment; and (ii) providing a positive response to the individual when the virtual character learns the desired skill (col. 9, lines 3-7; col. 3, lines 10-13; col. 2, lines 58-59; col. 19, line 44-57; and col. 12, lines 10-31; wherein the desired instruction needed to learn the desired skill are basic training skills needed for the virtual environment). Rapoza is silent in regards to the learning state comprising a node-based system capable of dynamically adding new sets, whereby the virtual character is capable of learning a new skill which extends beyond a pre-existing set of nodes.

Regarding claims 4-5, Rapoza discloses that the instructions comprise direct (i.e., inducing an action by another character) and indirect (i.e., advice) instructions (col. 38, lines 22-37).

Regarding claim 6, Rapoza discloses that the indirect instructions may comprise providing an example (col. 38, lines 27-28).

Regarding claim 7, Rapoza discloses that the indirect instruction comprise creating an inference (col. 38, lines 28-30).

Regarding claim 8, Rapoza discloses that the virtual environment is configured so that additional virtual elements can be introduced into the environment (e.g., introducing cigarettes as a temptation to the user, col. 33, lines 45-60).

Black teaches a method and system for training an artificial neural network (herein after ANN) having a node type system capable of dynamically adding new nodes to provide a neural network training method and system that can increase training efficiency by automatically optimizing the architectural characteristics of an ANN by adaptively adding nodes and layers to the neural network during the training process. By having a node based-system capable of adding new nodes beyond the existing set of nodes, one of ordinary skill in the art would provide a neural network training method and system that can increase training efficiency by automatically optimizing the architectural characteristics of an ANN by adaptively adding nodes and layers to the neural network during the training process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Rapoza to include a node-based system capable of dynamically adding new sets as taught by Black to provide a neural network training method and system that can increase training efficiency by automatically optimizing the architectural characteristics of an ANN by adaptively adding nodes and layers to the neural network during the training process.

Response to Arguments

5. Applicant's arguments with respect to claims 1 and 4-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX P. RADA whose telephone number is (571)272-4452. The examiner can normally be reached on Monday - Thursday, 09:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. P. R./

Examiner, Art Unit 3714

/Peter D. Vo/

Supervisory Patent Examiner, Art Unit 3714